# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/813,063 | 03/31/2004 | William C. DeLeeuw | 42339-199426 | 5261 |

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| 26694 | 7590 | 10/26/2006 | CHEN, ALAN S |

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| ART UNIT | PAPER NUMBER |
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| 2182 | |

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | Application No. | Applicant(s) |
|---|---|---|
| | 10/813,063 | DELEEUW, WILLIAM C. |
| **Office Action Summary** | Examiner | Art Unit |
| | Alan S. Chen | 2182 |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>28 August 2006</u>.

2a)☒ This action is **FINAL**.      2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>31 March 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All  b)☐ Some *  c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

## DETAILED FINAL ACTION

### *Response to Arguments*

1.      Applicant's arguments and amendment with respect to the 35 U.S.C. §101

rejection have been considered but are not persuasive.  Applicant argues in his

Remarks that signals are tangible and statutory.  Per the latest revision of MPEP,

section 2106.01 specifically states, "When nonfunctional descriptive material is recorded

on some computer-readable medium, in a computer or **on an electromagnetic carrier**

**signal**, it is not statutory since no requisite functionality is present to satisfy the practical

application requirement", emphasis added.  Claims 18 and corresponding dependent

claims are non-functional since they deals with configuration of a processor to a

computing platform and no practical application is present or gleamed in the claims.

Furthermore, signals, *per se*, are not statutory simply by virtue that they do not fall

within the four statutory categories of 35 U.S.C. 101, i.e., process, machine,

manufacture, or composition of matter.

2.      Applicant's prior art arguments with respect to claims 1-20 have been considered

but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 101*

3.      35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

4.      Claims 18-20 are rejected under 35 U.S.C. 101 because the claims contain

nonfunctional descriptive material embodied outside the four statutory categories.  In

view of Applicant's disclosure, paragraph 15, the "tangible machine-accessible medium"

is not limited to elements that fall into the four statutory categories, instead being

defined as including both proper 35 U.S.C. §101 statutory category elements (e.g.,

paragraph 15, ROM, RAM, flash/magnetic storage devices) and improper 35 U.S.C.

§101 statutory category elements (e.g., paragraph 15, carrier waves and signals). As

such, the claims are not limited to statutory subject matter and are therefore non-

statutory. To overcome this rejection the claims need to be amended to include only the

physical computer media and not include communication/transmission media or other

media that falls outside of the four statutory categories. Examiner recommends using

the terms "A machine-accessible storage medium".

## Claim Rejections - 35 USC § 112

5.      The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

6.      Claims 18-20 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Claim 18 recites the limitation "a tangible machine-accessible medium" in line 1.

There is insufficient antecedent basis for this limitation in the claim. Nowhere in the

claims or specification is there defined to be what is "tangible" or not tangible.

Claims 19 and 20 are rejected based on being dependent on a rejected base

claim.

## *Claim Rejections - 35 USC § 102*

7.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public
> use or on sale in this country, more than one year prior to the date of application for patent in the United
> States.

8.      Claims 1-7 and 9-20, are rejected under 35 U.S.C. 102(b) as being anticipated by

US Pat. No. 5,537,558 to Fletcher et al. *(Fletcher)*.

9.      Per claim 1, Fletcher discloses an apparatus, comprising: a communication

device *(Fig. 1, element 22 and Fig. 2 shows a PCMCIA communication device)* to

support simultaneous communication *(Column 7, lines 18-30, microprocessor fast*

*enough such that the user sees LAN and RS232 communications as simultaneous)* with

a common platform *(Fig.1, element 2 is the host which transmits/receives data from*

*PCMCIA adapter, OS on host is construed to be the common platform)* using at least

two communication protocols *(Fig. 2, elements 26 and 28, LAN and serial*

*communications)*, wherein said communication device *(Fig. 2, PCMCIA communication*

*device)* is adapted to be coupled to at least two communication interfaces *(Fig. 2,*

*elements 32 and 40 are two interfaces)*.

10.     Per claim 2, Fletcher discloses claim 1; Fletcher further disclosing said at least

two communication interfaces are coupled to a single computing platform that

comprises said common platform *(Fig. 1, element 2 is single PC)*.

11.     Per claim 3, Fletcher discloses claim 1, Fletcher further disclosing said

communication device comprises software to configure the communication device to

communicate using each of said at least two communication protocols *(Fig. 2, memory elements 50 and 52 contains instructions for PCMCIA device)*.

12.    Per claim 4, Fletcher discloses claim 1, Fletcher further discloses said communication device comprises a reconfigurable communication system *(flash memory by definition is reconfigurable, e.g., update code)*.

13.    Per claim 5, Fletcher discloses a system *(all of Fig. 1)* comprising: a communication device *(Fig. 1, element 22)* to support simultaneous communication *(Column 7, lines 18-30, microprocessor fast enough such that the user sees LAN and RS232 communications as simultaneous)* with a common platform *(Fig.1, element 2 is the host which transmits/receives data from PCMCIA adapter, OS on host is construed to be the common platform)* using at least two communication protocols *(Fig. 2, elements 26 and 28, LAN and serial communications)*; a computing platform comprising the common platform *(Fig. 1, element 2 is single PC)*; and at least two communication subsystems coupled to said computing platform *(Fig. 2, elements 32 and 40)*, each of said communication subsystems adapted to communicate with said communication device using at least one of said at least two communication protocols *(RS232 or LAN communications)*.

14.    Per claim 6, Fletcher discloses claim 5, Fletcher further discloses at least one portion of at least one of said communication subsystems is implemented as a device coupled to said computing platform *(Column 5, lines 30-55, SCC and UART are devices coupled to the host as shown in Figs. 1 and 2)*.

15.    Per claim 7, Fletcher discloses claim 6, Fletcher further discloses said device

comprises a hardware medium-access device *(Fig. 2, element 42 is a direct memory*

*access controller to access hardware medium)* and a co-processor *(Fig. 2, element 38,*

*is a coprocessor, host pc has the main processor)*.

16.    Per claims 9 and 10, Fletcher discloses claim 5, Fletcher further discloses

communications subsystems *(Fig. 2, element 40)* is adapted to communicate using

more than one communication protocol *(LAN uses TCP/IP which is by definition two*

*protocols)* and changeable between them *(TCP/IP used in conjunction and are*

*interchangable)*.

17.    Per claim 11, Fletcher discloses claim 5, Fletcher further discloses at least one of

said communication subsystems comprises: a driver *(Fig. 2, element 50, flash contains*

*the drivers for UART and SCC; Column 6, lines 60-67)*; and a communications interface

coupled to said driver *(Fig. 2, element 50 interfaces SCC and UART over bus,.element*

*48 which is controlled by processor, element 38)*.

18.    Per claims 12 and 13, Fletcher discloses claim 5, Fletcher further discloses  said

communication device comprises a reconfigurable communication system *(Flash*

*memory is by definition reconfigurable)* and is software reconfigurable *(update flash*

*through software download)*.

19.    Per claim 14, Fletcher discloses a method *(Fig. 4 shows at least part of method*

*employed to operate system shown in Fig. 1)*, comprising: communicatively coupling a

communication device *(Fig. 1, element 22 and Fig. 2 is PCMCIA device)* to a computing

platform *(Fig. 1, element 2 is host computer)*, said coupling comprising: coupling to said

computing platform using a first communication protocol *(Fig. 2, element 28, LAN protocol)*; and simultaneously coupling to said computing platform using a second communication protocol *(Fig. 2, element 26, serial protocol; Column 7, lines 18-30 discloses simultaneous coupling of both protocols)*, wherein said communication device is to be coupled to at least two communication interfaces *(Fig. 2, elements 32 and 40)*.

20.    Per claim 15, Fletcher discloses claim 14, Fletcher further discloses said coupling to said computing platform using a first communication protocol and coupling to said computing platform using a second communication protocol comprise: sharing a single communication interface coupled to said computing platform *(Fig. 2, element 24, single PCMCIA interface to host PC; Fig. 1, element 4 shows single PCMCIA interface circuit)*.

21.    Per claim 16, Fletcher discloses claim 14, Fletcher further disclosing coupling to said computing platform using a first communication protocol comprises coupling to a first communication interface *(Fig. 2, element 28, protocol used at LAN port, element 28 over bus, element 44 is controlled by interface SCC, element 40)* using said first communication protocol; and wherein said coupling to said computing platform using a second communication protocol *(Fig. 2, element 26 and 30 use serial protocol)* comprises coupling to a second communication interface *(Fig. 2, element 32 is the second communication interface)* using said second communication protocol.

22.    Per claim 17, Fletcher discloses claim 14, wherein Fletcher further discloses said coupling a communication device further comprises reconfiguring said communication device *(Fig. 2, element 50, flash memory is by definition reconfigurable and reconfigures device based on updates, etc)* to communicate utilizing a third

communication protocol *(Fig. 1, elements 113X are dedicated communication protocols*

*unique to each I/O devices, thus from Fig. 1 alone, there is shown at least four different*

*communication protocols; Column 1, lines 30-35 )*, wherein said third communication

protocol is used instead of one of said first or second communication protocol *(LAN*

*uses TCP/IP, used interchangeable and enabled by instructions from flash memory)*.

23.    Per claim 18, Fletcher discloses a tangible machine-accessible medium *(Fig. 2,*

*element 50)* containing instructions *(Flash memory by definition contains instructions for*

*proper operation of PCMCIA device)* that, when executed by a processor *(Fig. 2,*

*element 38)*, cause said processor to execute a method comprising: configuring said

processor to couple, using at least two communication protocols simultaneously *(Fig. 2,*

*element 26 and 28 are two protocols; Column 7, lines 18-30 disclose both can be*

*simultaneously used)*, to a computing platform *(Fig. 1, element 2)*, said processor to be

coupled to at least two communication interfaces *(Fig. 2, element 32 and 40)*.

24.    Per claim 19, Fletcher discloses claim 18, Fletcher further discloses containing

further instructions that, when executed by said processor, cause the method executed

by said processor to further comprise: reconfiguring at least one of said at least two

communication protocols to a different communication protocol *(LAN uses two protocols*

*TCP/IP which are enabled by instructions from flash memory in Fig. 2, element 50)*.

25.    Per claim 20, Fletcher discloses claim 18, Fletcher further discloses said at least

two communication protocols comprise at least two different communication

protocols *(RS232 and LAN protocols are different)*.

## Claim Rejections - 35 USC § 103

26.     The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

27.     The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.     Determining the scope and contents of the prior art.
2.     Ascertaining the differences between the prior art and the claims at issue.
3.     Resolving the level of ordinary skill in the pertinent art.
4.     Considering objective evidence present in the application indicating
       obviousness or nonobviousness.

28.     Claim 8 is rejected under 35 USC 103(a) as being unpatentable over Fletcher in

view of US Pat. No. 5,845,139 to Fischer et al. *(Fischer)*.

Fletcher discloses claim 7.

Fletcher does not disclose expressly the computing platform having a low-power

sleep mode where the hardware medium-access device *(e.g., keyboard)* awakens said

computing platform from sleep mode upon occurrence of a predetermined event.

Fischer discloses a PCMCIA card that implements SLEEP mode for the express

purpose of saving power *(Column 2, lines 20-25)*. Fischer further discloses activating

the PCMCIA card in a wake-up scenario when the PCMCIA card functionality needs to

be used *(Column 2, lines 20+)* to save power.

Fletcher and Fischer are analogous art because they are from the same field of endeavor in computing systems utilizing PCMCIA cards to extend functionality of a host computer system.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Fletcher to include a sleep-mode and wake upon activity from the network in Fletcher.

The suggestion/motivation for doing so would have been power saving features and powering up only when processing cycles are needed for more efficient use of power *(Column 2, lines 20-25 of Fischer)*.

### Conclusion

29.    Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

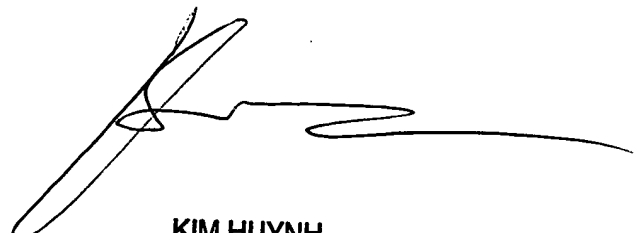30.    Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S. Chen whose telephone number is 571-272-4143. The examiner can normally be reached on M-F 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim N. Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ASC
10/19/2006

KIM HUYNH
SUPERVISORY PATENT EXAMINER

10/25/06